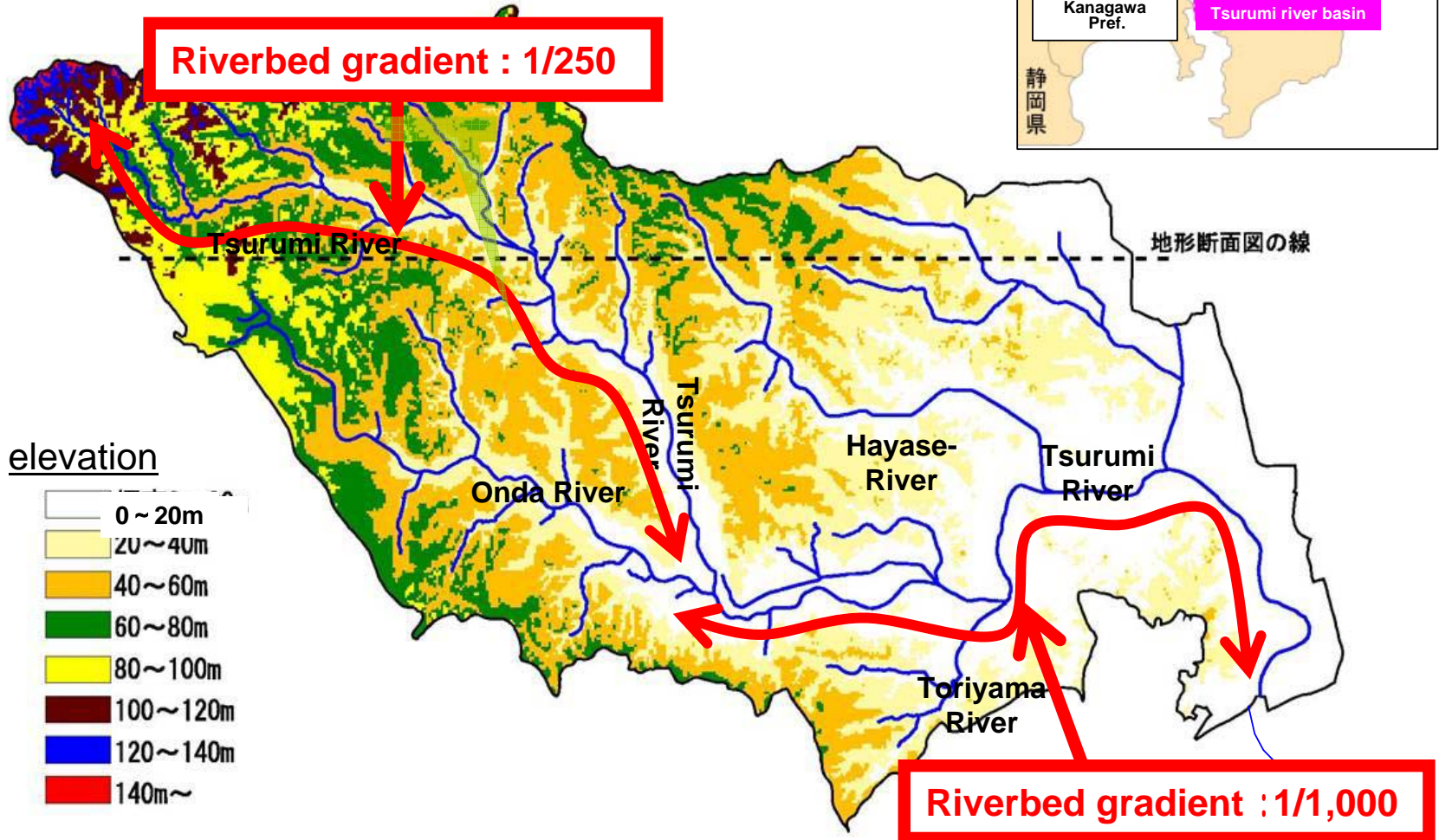
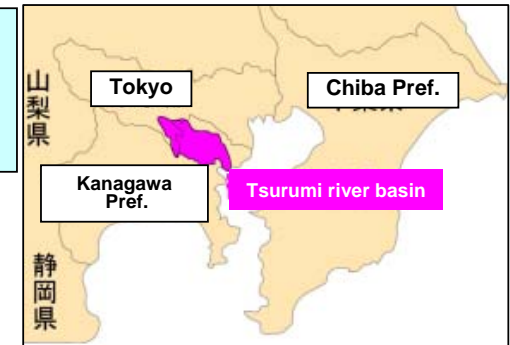


Outline of Tsurumi River (Geography)

River basin area 235km² Hill / tableland 70%
Main stream length 42.5km Alluvial lowland 30%



Outline of Tsurumi River (Urbanization and population increase)

Urbanization ration has increased
by **75%** in 50years

Rapid economic growth has turned
natural area into urban area

1958 10%

1966 20%

Typhoon Karinogawa in Sep 1958



450,000

700,000

1975 60%

Present 85%

Typhoon No.17 in Sep 1976



1,200,000

1,880,000

Urbanization

Population

Natural Area

Urban Area



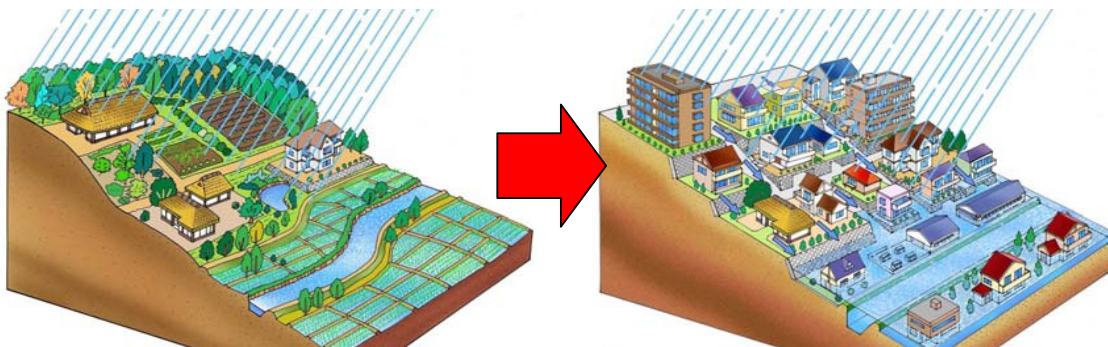
Outline of Tsurumi River (Effect of urbanization)

- Population increased by 1.4 million in 50 years
- 85% of river basin area urbanized
- Typical urban river

As a result

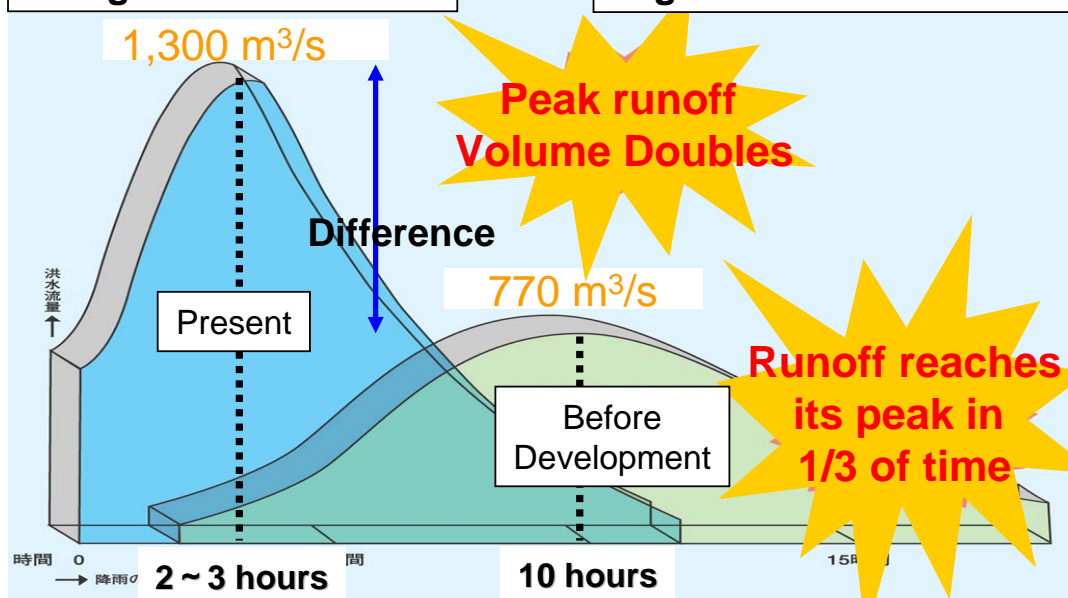
- Discharge into river has become faster
- Peak runoff has become bigger

Function of keeping and retarding water became weakened

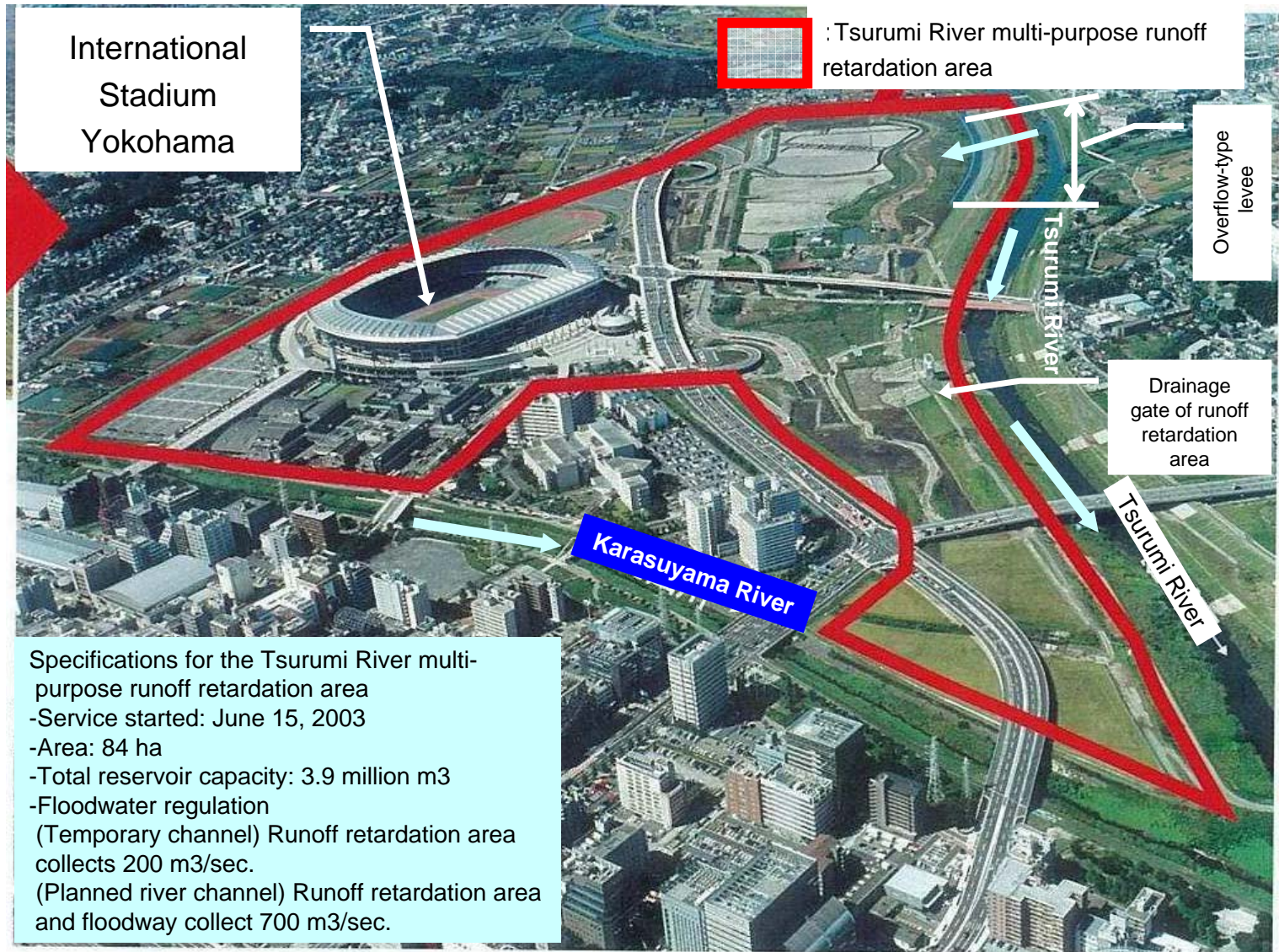


Before development
Slight urbanization

After development
Significant urbanization



Tsurumi River multi-purpose runoff retardation area



Sewerage projects in Tsurumi River Basin inundation control plan

